

## Department of Chemistry & Physics

### PHYS 2031 GENERAL PHYSICS LABORATORY

Textbook                      PHYS 2031 Lab Manual

#### ***Course Outline***

This course will cover about 12 labs. Each lab consists of working on a single experiment in the lab, followed by writing a lab report. Your lab report is due at the end of each of the lab sections, which means you have to complete your lab operations and your lab report within three hours in the lab. Pencil is preferred in writing your lab report.

#### ***Course Goals***

This course is intended:

1. To supplement the content of PHYS 2030.
2. To give students hands-on experience at performing experiments to investigate concepts of physics.
3. To introduce the student to techniques for making physical measurements.
4. To illustrate the use of the scientific method.

#### ***Course Objectives***

The student who successfully completes this course should be able:

1. To define displacement, velocity, and acceleration.
2. To describe three methods for adding vectors.
3. To measure the acceleration of gravity using at least two different methods.
4. To state Newton's three laws of motion.
5. To explain the relation between force, mass, and acceleration as described by Newton's Second Law.
6. To define work, energy, and momentum, and describe methods for measuring these quantities.
7. To define static and kinetic friction and describe methods for measuring these quantities.
8. To define torque and rotational equilibrium.
9. To define simple harmonic motion.

*It is the policy of NSU to accommodate students with disabilities, pursuant to federal law, state law, and the University's commitment to equal educational opportunities. Any student with a disability who needs accommodation, for example in seating placement or in arrangements for examinations, should inform the instructor at the beginning of the course. Students with disabilities are encouraged to contact Disability Services, which is located in Kyser Hall, room 237, telephone 357-6950 or (TTD) 357-4393 or [disability@nsula.edu](mailto:disability@nsula.edu).*